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ADDRESS GIVEN AT THE PUBLIC HEALTH CONVOCATION, SPRINGFIELD, MASS., NOVEMBER 21, 1919.

BY ALFRED WORCESTER, M.D., WALTHAM, MASS.

WE are just beginning our ter-centennial celebrations of the settlement of New England. This year we shall be thinking of the Pilgrims of Plymouth, and soon we shall be reminded of the Puritans of the Massachusetts Bay settlements.

Brave people they all were and great were their hardships. What is most pathetic in their annals is their frightful sufferings and mortality from disease. At Plymouth, and eight or nine years afterwards at Salem, full half of them died during the first year of the settlement. Some of these sicknesses, especially at Plymouth, were the unavoidable consequences of starvation and exposure; but undoubtedly the greater part of the disaster was from diseases now known to be preventable. It is indeed a pitiful story.

Although in succeeding centuries there have been brilliant discoveries in the treatment of some diseases, the great advance of medical science during these later years has been in the discovery of the parasitic origin of many of our common diseases, and the means of preventing them.

Formerly these diseases, even if known to be contagious, were considered as mysterious afflictions from on high, which our forefathers were bidden meekly to accept—along with their predestination to hell. Perhaps that association of ideas led to the later equally absurd belief in the efficacy of the fumes of burning sulphur as a disinfectant.

Laugh as we may at the ignorance of our predecessors regarding the true nature of these diseases, what is the good of our modern knowledge if we do not apply it! What comfort is there in knowing that most of the sicknesses, yes, and most of the deaths of our friends and neighbors might have been prevented! What advantage have we over our forefathers who in darkness walked through the valley of the shadow of death!

True, some of the awful diseases that our forefathers suffered have been stamped out. In these meetings you will hear how other diseases might likewise be exterminated. For, in this fight against the disease-producing parasites, the medical profession and our health officials can now point out the way. But suc-

cess in the fight depends upon the intelligence and determination of all our citizens.

In Prussia certain diseases during later years were stamped out by government orders. Before a peasant's family could eat their pig, the carcass had to be carted to the sanitary station for microscopical proof that there was no trichinosis in the pork. Here a farmer, if he chooses to take the risk, can not only let his children contract that disease, he can even let them drink tuberculous milk. This is a free country.

In the Franco-Prussian War, a half century ago, the German soldiers were almost decimated by the smallpox. In the last war, because of compulsory vaccination there was no smallpox except in those armies of the half-civilized nations where vaccination was not required. The same was true of typhoid fever.

In time of war, even in this country, the people accept all sorts of arbitrary rulings. But in peace times we Americans are jealous of our liberty. And yet, even if the right to be sick and to die as he pleases be granted to the individual, he certainly has no right to indulge in any sickness or to refuse precautions against it, if such a course on his part endangers the health or life of his fellow-citizens.

This is where the necessity of an intelligent public comes in. What we all want, we in this country can have. For instance, we can decide what sort of a Governor we shall have. And we can depend upon our Legislators to enact the sanitary laws that we want. But we must make our wants known. Besides spreading information regarding personal hygiene, this Convocation is held for the double purpose, first, of making plain the meaning and necessity of what sanitary laws we already have and also of those that the Legislature will be urged to enact; and, second, of securing for the enforcement of these laws the hearty coöperation of the public.

Let me give you one glaring instance of the need of this public support. I have already referred to the smallpox as one of the diseases that has been completely stamped out in countries that employ universal vaccination. And yet there are even today some misinformed people who strive for the repeal of our laws requiring that safeguard. One of the grounds of their opposition to compulsory vaccination is that it is an interference with individual liberty; another of their tenets is that, as there is no such disease now prevalent, vaccination is no longer needed. Their fanaticism, I submit, is no more fatuous than that of the earlier opponents of vaccination on the ground that it was a sacrilege thus to prevent the punishment that the Almighty so plainly intended for his children.

But I am taking too much of your time. I am here only to speak for the medical profession of Massachusetts, to bring their greetings, and to assure you of their hearty approval of this great public health movement.

Our professional activities, which formerly were directed almost solely to the cure of the sick, are now more and more devoted to disease prevention. The time may come when, as in China, the pay of the family physician is continued only while the family is well; but when any member of the family is sick the physician's salary is interrupted.

Original Articles.

TUMORS OF THE ANTERIOR SURFACE OF THE SACRUM.

CASE I. CHORDOMA.
CASE II. SACRO-COCCYGEAL DERMOID.

BY FRED B. LUND, M.D., BOSTON.

LAST winter the writer was consulted by two women, both of whom presented tumors of the anterior surface of the sacrum. Both were rare conditions: one a chordoma of the sacrum; the other, a congenital cyst of large size. Both were dealt with by the Kraske method of approach and the interesting points both in diagnosis and treatment which they present render them worthy of a brief report and discussion. Both were referred to the writer by Dr. N. S. Hunting of Quincy, in whose practice they occurred, and to Dr. Hunting and the Quincy Hospital the writer is indebted for the post-operative records.

CASE 1. A. N., aged 60. Previous history unimportant. Had suffered for two years from pain and pressure symptoms over the sacrum and pain in the rectum. There had been some interference with the functions both of the rectum and bladder with occasional incontinence of feces and urine.

In December, 1918, I found a rather thin woman of healthy appearance and good color. Vaginal and rectal examination disclosed a tumor the

size of a small mandarin orange sessile on the anterior surface of the sacrum. The tumor was uniformly smooth, rounded, elastic to the touch, and rather hard. There was no adhesion to the rectal mucous membrane which moved freely over it. The examining finger could reach above it and feel the normal sacrum. It shaded off rather to the right and appeared adherent to the tuberosity of the right ischium. The writer made a diagnosis of sarcoma and was disinclined to operate because the tumor appeared to have extended into the right pelvic wall, and it was thought, although the sacral portion of the tumor might be removed by the Kraske procedure, its attachment to the ischium and lateral pelvic wall rendered it really inoperable. The patient was referred to Dr. Robert B. Greenough at the Huntington Hospital for consultation with regard to the possibility of radium treatment. Dr. Greenough felt that if sacral resection were done and possibly partial removal, the radium treatment might possibly be attempted thereafter. Subsequent to this consultation her pain and incontinence grew worse and recognizing that the prospect of cure was remote, she begged for operation for relief.

She was admitted to the Quincy Hospital on February 4th, where rectal examination showed that the mass had increased somewhat and extended from just above the sacrococcygeal joint upward to the vertebra prominens, and laterally to both ischiatic rami. There was also slight swelling and oedema over the back of the sacrum. On February 5, with Dr. Hunting's assistance, I made a vertical incision over the sacrum, swinging to the right at the upper end, purposing to follow Kraske's procedure. We found that the tumor, which was clear, and of gelatinous consistency, had perforated the sacrum and spread out on its posterior surface. It had replaced a good part of the sacrum and the finger introduced into it went right through the latter and into the mass in front, which was much larger than we had believed. The tumor and a great part of the sacrum were removed with the finger and a large curette, care being taken to push the rectum forward and avoid injuring it. The tumor involved the main surface and right pelvic wall and though a very large quantity of gelatinous tissue was scraped out, it was obviously impossible to remove it all. Very profuse hemorrhage made the operation difficult and obliged us to terminate [illegible] quickly and stuff the cavity with gauze.

She rallied well. The [illegible]uze was removed in a few days and [illegible] the first week she ran a high temper[illegible]ure and the discharge from the wound [illegible]s foul. Then her condition began to impro[illegible]. On March 4, she was up and about bu[illegible]ained slowly. The wound healed down to [illegible] shallow cleft. She went home and gained [illegible]htly after returning home. It was not t[illegible]ght best to attempt radium treatment sinc[illegible] we felt there was very little chance to [illegible]efit from it. While still apparently gaini[illegible] she died rather suddenly on April 13, 19[illegible]. There was no autopsy. An examinatio[illegible] of a specimen by Dr. J. Homer Wright sh[illegible]ved a tumor consisting largely of colloid ma[illegible]rial in which were imbedded strands of cells. These cells were regarded as representing those forming the notochord.

The term chordoma is properly applied to growths arising from the remains of the tissue of the notochord, in the center of the intervertebral discs. They consist of vacuolized cells suspended in a gelatinous matrix, the vacuolization resembling that occurring in chondroma.

The following account of their pathology is taken from an interesting article in the BOSTON MEDICAL AND SURGICAL JOURNAL, May 22, 1919, by Ernest M. Daland, M.D.

"H. Müller has shown that other remnants of the notochord are frequently found at postmortem—chiefly at the base of the skull and on the coccyx. Virchow describes a series of such growths under the name of ecchondrosis physalifora, considering the vacuolation that of chondromata. Ribbert proved that they were the proliferated remains of the notochord. In 2% of a series of cases, he found remnants in the bony tissue beneath the dura of the clivus Blumenbachii,—that portion of the sphenoid bone which is continuous with the basilar groove of the occipital bone. Ribbert further demonstrated pedicles connecting them with the bone, within which there was similar tissue. Growths of this nature have also been demonstrated on the dorsum sellae, the hypophysial fossa, and more rarely, on the sacrum.

"Hence those notochordal tumors or chordomata have, until recently, been mere pathological curiosities. With the reporting of several malignant chordomata, their clinical signifi-

cance has become of more importance. In a malignant chordoma, the cells tend to differentiate into the syncytial type of vacuolated cells, which are typical of adult notochordal tissue. Usually foetal, adult, and intermediate types are to be found in the same tumor."

According to Daland, sixteen cases of chordoma have been reported clinically. He reports the 17th case operated upon by Dr. C. A. Porter, where a chordoma arising from the base of the skull caused headache, deafness, hoarseness, and other symptoms, from pressure on the nerves at the base of the skull. Her symptoms were relieved and seven months after operation her headaches had entirely disappeared, but there was a recurrence of the mass in her neck.

Ten of the sixteen cases had their origin at the base of the skull, one from the anterior surface of the cervical vertebra and five occurred in the sacrococcygeal region. Of the five, only one had been operated upon without recurrence. Of the tumors at the base of the skull only one case did not recur after operation and in only one of the sacral cases was operation not followed by recurrence. Tumors of the base of the skull naturally cause paralysis from pressure on the cranial nerves and spreading everywhere infiltrate the skull and vertebrae. The symptoms caused by coccygeal tumors produce pressure symptoms upon the rectum, sometimes partial occlusion of the rectum and sometimes, as in our case, incontinence of feces and urine from actual involvement of the sacral plexus in the diseased tissue.

For an excellent bibliography the reader is referred to Dr. Daland's article.

CASE 2. Sacrococcygeal tumors, the so-called ventral tumors of the sacrum, are extremely interesting from an embryological point of view, Here occur dermoid cysts, teratoma and mixed tumors. They differ from the common coccygeal cysts on the posterior surface of the sacrum known as pilo-nidal sinuses, in size and complication, both in their histological structure and the symptoms which they produce. Dermoid cysts and teratoma of the other parts of the body occur along the branchial clefts in the head and neck and in the mediastinum, while perhaps, as is natural, their common seat is in the ovary and testicle. Those occurring in front of the sacrum are connected with the dorsal canal, the chorda dorsalis and the neurenteric canal. This following brief statement of the embryology is taken from an interesting article by Arthur Ayer Law, Ventral Tumors of the Sacrum (*Surgery, Gynecology, and Obstetrics*, 1913, XVII, 340.)

"When, in early embryonic life, the entoderm forms the caudal intestine, the canal dorsalis and chorda dorsalis; the mesoderm the connective tissue, muscles, vertebrae and blood vessels; and the ectoderm the primitive streak, medullary tube and its vestiges, the central canal of the spinal chord and the primitive alimentary canal are continuous around the caudal extremity of the notochord. This passage, which brings the developing gut and cord into communication, is called the neurenteric canal.

"When the proctodeum invaginates to form part of the cloacal chamber, it meets the gut at a point in front of and some distance above the place where the neurenteric canal has its opening into it; therefore there remains, for a period, a part of the gut down behind the anus, called the post-anal gut. This is later obliterated, as is the neurenteric canal.

"Considering the complexity of the embryonic tissues forming the caudal section of the trunk axis and their perfect evolution ere they arrive at maturity, we can understand how many and varied deviations from the normal are possible; indeed, the marvel is how we so frequently escape the pathological forms."

The sacrococcygeal dermoids vary very greatly, ranging from the simple dermoid cyst such as is the case reported in this paper, to cysts containing connective tissue, muscle fibre, hair, teeth, nerve tissue, glands, skin, intestinal remnants, cartilage and bone, even rudimentary or special organs. Practically all of these tumors are definitely encapsulated and appear to arise from the pelvic connective tissue. Some of them are found on rectal or vaginal examination, others may extend down into the perineum and cause an external tumor. They have been found hanging down from the body as a sacral appendage. Sometimes they have ruptured into the bladder, vagina, and rectum, and even, as in one case reported by Keen and Coplin, opening between the sacrum and coccyx. They may simulate uterine fibroids, ovarian cysts, intra-ligamentous cysts or anterior spina bifida and give rise to symptoms of pressure on neighboring structures. In married women they interfere with coitus, and in Law's case such a tumor so obstructed labor that a panhysterectomy was done under the impression that the tumor was a fibroid in the cervix. During the

operation the correct diagnosis was made and the tumor subsequently removed by means of Kraske's operation. The tumor consisted of rapidly growing connective tissue with a nest of embryonic cells.

The case that I have to report is a young woman of 24, who had suffered since marriage, or about two and a half years, from pain in the left side and middle of the back, constipation, indigestion, and painful coitus. The pain was worse just before the menstrual periods. She had never become pregnant. Menstruation had not appeared at all until she was twenty-one years of age. Examination showed a very large cyst on the anterior surface of the sacrum, pushing the rectum and posterior rectal wall forward, filling the hollow of the sacrum to a point beyond the reach of the finger. The tumor was soft, fluctuating, evidently a very large cyst. The uterus could be felt to be in normal position, free and entirely unconnected with the tumor, being separated from it by the rectum. X-Ray showed a bifurcation of the tip of the coccyx. The late appearance of menstruation and the deformity of the coccyx shown by the x-ray both suggested that the cyst was a congenital dermoid or teratoma.

At the Quincy Hospital on February 21, I made a Kraske incision over the coccyx and lower sacrum, removing the former and the lower portion of the latter. Beneath was found a thin walled sac which was adherent to the periosteum of the coccyx and was opened during its removal. An enormous amount of cheesy material in large flakes the size of lima beans escaped from the opening. The greater portion of the sac, which was thin, was dissected out, but it was impossible to separate the deepest portion of it from the rectal wall to which it was adherent. After removing as much as possible of the wall of the sac, the cavity was wiped out with tincture of iodine and the wound, drained, after being partly closed with sutures of silkworm gut. The subsequent history was uneventful and on March 9 she went home, the tumor having entirely disappeared and the wound being almost healed. Since then Dr. Hunting has informed me that she has continued to do well as far as the cyst is concerned and there has been no recurrence. The pathological report by Dr. F. B. Mallory showed the cyst lined with epidermis in which there were no evidences of sebaceous or other glands. The contents consisted of masses of cornified epithelium and cholesterin crystals. The diagnosis was sacral epidermoid cyst.

It is interesting to note that the symptoms in this case were entirely of an obstructive character, due to the blocking of the pelvic canal by the tumor and not as in the first case due to actual involvement of the nerves in a malignant growth. This condition resulted in the first case, as noted in the history, in incontinence of urine and feces. The symptoms, then, in the first case were paralytic and in the second case obstructive. The two together are interesting examples of two rare forms of tumor of the anterior portion of the sacrum.

In Dr. Law's article will be found a more complete description of the embryology and an excellent list of references.

REPORT OF THE STUDY OF THE CHILDREN OF ROXBURY BY THE BOSTON CHILD WELFARE COMMITTEE OF THE WOMEN'S PUBLIC SERVICE COMMITTEE.

THE war-time program suggested by the Children's Bureau of the Department of Labor at Washington was entered upon in 1918. It began in Boston, as throughout the country, with a test of the weight and height of children under six years of age. Under the direction of the Child Welfare Committee of the Boston Public Safety Committee, the Campaign was carried on by volunteer workers during the first three weeks of May, 1918. According to the Health Commissioner's estimate, about half the children of pre-school age, or, 35,712 were weighed and measured and 5,000 of the children were found to be from 10 to 16 per cent. under weight, according to their age.

Although the commmittee realized that a campaign carried out by volunteer workers could not have definite, scientific results, the figures were so significant that they desired to investigate the causes of this dangerous condition of underweight in so many children of Greater Boston. The execution of a program was retarded in the early fall by the influenza epidemic, and, with the signing of the armistice, war committees began to disappear. It was necessary to modify the program and hasten the work to meet new conditions; it became evident, therefore, that it would be unwise to attempt intensive work with five thousand children and

so the committee selected one district, namely, Roxbury, for a careful study of ten per cent. of the underweight group of the entire city. Statisticians agreed that the results shown by such a study would be a fair basis on which to judge the needs of all the underweight children. Roxbury was selected because it has a cosmopolitan population and because there were nearly one thousand children there who obviously needed care, although in any other district of Boston the five hundred underweight children of pre-school age could have been found.

In order to determine, therefore, the type of care needed by each child, two clinics were opened in March, conducted and financed by the Baby Hygiene Association, for the purpose of making the five hundred physical examinations.

One clinic, located in the Roxbury Neighborhood House, 859 Albany street, was conducted each day from 11 o'clock A.M., to 1 o'clock P.M., and the other in the Municipal Building at 1049 Columbus avenue, from 4 to 6 o'clock P.M. The clinics continued forty-three days and the same two doctors, both specialists, were in daily attendance, being assisted by public health nurses. The children were undressed, weighed, measured, and thoroughly examined. The eagerness with which the mothers of the district availed themselves of the opportunity for having their children examined, and the promptness with which most of them followed directions received at the clinics were most gratifying. If the response to this special piece of work is a fair indication of the attitude of mind of the mothers of Boston, it is safe to say that they are ready for the biggest educational program that the city can offer. The response and appreciation shown by the parents were most gratifying. All sorts of home adjustments were made for the sake of getting the children to the clinics to learn the truth about their physical needs. From the homes on the outer border lines of Roxbury, it was difficult for mothers to travel to the clinics with two or three small children. For these families motor transportation was provided. The Red Cross Motor Corps contributed part of the service, and the remainder was paid for with the money donated to the committee by interested people who realized that speed in executing the program was economy in the end. The service was also used by the nurses in transporting children whose mothers were ill.

Five hundred and fifty examinations were made. Fifty of these children were found to be without physical defects. Their weight was average for their height, according to our present day standards, and there was no reason for retaining them in the study group.

In all the following tabulations, the table used for comparison was the "Age, Height, and Weight Table" issued by the Children's Bureau for use during the National Weighing and Measuring Campaign last year.

TABLE I.

DISTRIBUTION BY HEIGHT ACCORDING TO AGE OF CHILDREN OF ROXBURY EXAMINED DURING STUDY OF BOSTON CHILD WELFARE COMMITTEE.

Age	Number of children examined			Number whose height was below average								Number whose height was above average								Number of children whose height is average.		
						Inches 1----2		Inches 3----4		Inches 5---6				Inches 1----2		Inches 3---4		Inches 5----6				
	Total	Boys	Girls	Total		Boys	Girls	Boys	Girls	Boys	Girls	Total		Boys	Girls	Boys	Girls	Boys	Girls	Total	Boys	Girls
Total	500																					
3 months & under		5	3	4	1	2	1	2	0	0	0	0	1	0	1	0	0	0	0	2	1	1
4 to 6 inclusive		5	5	2	2	2	2	0	0	0	0	0	2	0	2	0	0	0	0	4	3	1
7 to 12 "		15	15	8	9	1	5	5	4	2	0	1	0	0	0	1	0	0	0	12	6	6
13 to 18 "		36	33	29	21	16	13	21	7	0	1	2	0	2	0	0	0	0	0	19	7	12
19 to 24 "		27	23	17	9	6	3	9	5	2	1	4	2	2	2	0	0	2	0	18	6	12
25 to 30 "		23	24	14	17	3	8	9	6	2	3	0	3	0	3	0	0	0	0	13	9	4
31 to 36 "		19	23	12	15	2	8	7	6	3	1	3	1	1	0	2	1	0	0	11	4	7
37 to 42 "		17	29	9	13	3	5	4	6	2	2	5	4	3	2	0	2	0	0	17	5	12
43 to 48 "		33	18	16	7	10	2	5	5	3	0	4	3	3	1	1	2	0	0	19	11	8
49 to 54 "		18	22	8	16	3	9	3	6	2	1	6	2	6	0	0	2	0	0	8	4	4
55 to 60 "		23	19	13	14	9	9	1	2	3	3	6	5	3	5	2	0	1	0	4	4	0
61 to 66 "		15	12	6	6	6	3	0	2	0	1	4	4	4	4	0	0	0	0	7	5	2
67 to 72 "		14	22	5	10	4	4	1	5	0	1	3	1	3	1	0	0	0	0	17	6	11
		252	248	145	140	69	72	67	64	19	14	36	28	27	21	6	7	3	0	151	71	80

By this table it is shown that there are 285 children whose height is below average for their age. The number whose height was above average was 64 and the number of children whose height was average for their age was 151. In other words, there are 285 children out of 500 who are too short for their age.

TABLE II.

DISTRIBUTION BY WEIGHT ACCORDING TO AGE OF CHILDREN OF ROXBURY EXAMINED DURING STUDY OF BOSTON CHILD WELFARE COMMITTEE.

Age	Number of children examined			Number whose weight was below average							Number whose weight was above average								Number of children whose weight is average.		
						Lbs. 1---2		Lbs. 3---4		Lbs. 5---6				Lbs. 1---2		Lbs. 3---4		Lbs. 5---6				
	Total	Boys	Girls	Total	Boys	Boys	Girls	Boys	Girls	Boys	Girls	Total	Boys	Boys	Girls	Boys	Girls	Boys	Girls	Total	Boys	Girls
Total	500																					
3 months & under		5	3	3	2	1	0	1	2	1	0	1	0	1	0	0	0	0	0	2	1	1
4 to 6 inclusive		5	5	4	4	2	2	1	2	1	0	0	0	0	0	0	0	0	0	2	1	1
7 to 12 "		15	15	9	13	3	5	2	5	4	3	2	0	1	0	1	0	0	0	6	4	2
13 to 18 "		38	33	30	19	4	4	11	12	15	3	3	1	2	0	1	1	0	0	18	5	13
19 to 24 "		27	23	21	17	1	3	8	8	12	6	1	2	0	0	0	2	1	0	9	5	4
25 to 30 "		23	24	22	18	2	2	8	7	12	9	1	3	0	2	0	0	1	1	3	0	3
31 to 36 "		19	23	15	21	2	6	3	4	10	11	0	2	0	1	0	0	0	1	4	4	0
37 to 42 "		17	29	13	27	2	6	5	7	6	14	3	0	3	0	0	0	0	0	3	1	2
43 to 48 "		33	18	26	14	4	3	9	6	13	5	3	3	3	1	0	1	0	1	5	4	1
49 to 54 "		18	22	12	20	3	2	1	2	6	16	5	1	3	0	1	1	1	0	2	1	1
55 to 60 "		23	19	21	19	0	2	4	1	17	16	2	0	1	0	1	0	0	0	0	0	0
61 to 66 "		15	12	15	9	3	0	3	4	9	5	0	2	0	2	0	0	0	0	1	0	1
67 to 72 "		14	22	9	21	3	0	2	3	4	18	2	0	2	0	0	0	0	0	4	3	1
		252	248	200	204	30	35	58	63	112	106	23	14	16	6	4	5	3	3	59	29	30

By this table it is shown that there are 404 children whose weight is below average, 37 whose weight is above average, and 59 whose weight is average for their age. In other words, there are 404 children whose weight is below average for their age. Another significant fact is that 218 children are from 5 to 6 pounds below average for their age, and of these the largest number is found between the ages of 13 and 60 months.

TABLE III *a*.

DISTRIBUTION OF PER CENT. UNDERWEIGHT ACCORDING TO HEIGHT OF CHILDREN OF ROXBURY EXAMINED DURING STUDY OF BOSTON CHILD WELFARE COMMITTEE.

Number of children examined 500
Number of children whose weight is average according to height 51

PER CENT. UNDERWEIGHT	NO. IN EACH PER CENT. GROUP AS SPECIFIED		
	Total	Boys	Girls
2%	5	3	2
3%	25	17	8
4%	40	24	16
5%	15	7	8
6%	20	8	12
7%	22	14	8
8%	22	10	12
9%	24	9	15
10%	31	13	18
11%	14	5	9
12%	37	12	25
13%	17	8	9
14%	32	15	17
15%	16	7	9
16%	24	12	12
17%	11	9	2
18%	18	9	9
19%	4	1	3
20%	14	8	6
21%	2	1	1
22%	6	4	2
23%	2	1	1
24%	4	3	1
25%	0	0	0
26%	3	0	3
27%	0	0	0
28%	3	0	3
29%	1	1	0
30%	1	0	1
33%	1	0	1
38%	1	1	0
48%	1	1	0
	416	203	213

There are 311 children 7 per cent. or more underweight shown in the table above. "Clinical experience has led us to the conclusion that a child 7 per cent. or more underweight might be considered an ill child." *

* Malnutrition and Health Education. David Mitchell, Bureau Educational Experiments, New York.

TABLE III *b*.

DISTRIBUTION OF PER CENT. OVERWEIGHT ACCORDING TO HEIGHT OF CHILDREN OF ROXBURY EXAMINED DURING STUDY OF BOSTON CHILD WELFARE COMMITTEE.

Number of children examined 500
Number of children whose weight is average according to height 51

PER CENT. OVERWEIGHT	NO. IN EACH PER CENT. GROUP AS SPECIFIED		
	Total	Boys	Girls
2%	3	1	2
3%	2	1	1
4%	9	4	5
5%	3	1	2
6%	2	1	1
7%	1	0	1
8%	0	0	0
9%	2	0	2
10%	3	3	0
14%	2	2	0
15%	2	2	0
16%	3	3	0
19%	1	0	1
	33	18	15

By this table it is shown that only 33 children of the 500 examined are overweight, and that there are 51 of the entire number whose weight is average for their height.

TABLE IV.

DISTRIBUTION OF DEFECTS.

Number of children examined 500
Number of children having no defects .. 100

NO. OF DEFECTS	CHILDREN HAVING DEFECTS AS SPECIFIED		
	Total	Boys	Girls
1 defect	109	63	46
2 defects	175	75	100
3 "	70	33	37
4 "	36	23	13
5 "	5	3	2
6 "	4	3	1
7 "	1	0	1
	400	200	200

NOTE: Most parents believed their children to be perfectly well when they brought them to the clinic. Fifty-two boys and 48 girls who were underweight are free from physical defects, and 84 children with physical defects are not underweight.

PHYSICAL DEFECTS FOUND IN EIGHTY-FOUR CHILDREN NOT UNDERWEIGHT.

	Cases		Cases
Abscess of ear	2	Mumps	1
Adenoids	9	Nasal obstruction	3
Adenitis	2	Naevus	1
Ant. fontanelle open	3	Otitis media	4
Ant. fontanelle closed	1	Prepuce, adherent	1
Bronchitis	1	Phimosis	4
Carious teeth	8	Pediculosis	10
Coryza	16	Paresis	1
Eczema	5	Rickets, active	44
Epiphysis	3	Rickets, old	9
Endocarditis	3	Rhinitis, chronic	1
Empyema, old	1	Syphilis, congenital	1
Flat-foot	1	Tonsils, enlarged	7
Hernia, umbilical	3		
Hernia, abdominal	1		
Ichthyosis	1	TOTAL	147

TABLE V.

DISTRIBUTION OF DEFECTS ACCORDING TO AGE OF CHILDREN OF ROXBURY EXAMINED DURING STUDY OF BOSTON CHILD WELFARE COMMITTEE.

Total number of children examined 507

Defects	Total number of defects as specified				Defects as specified according to Age										
	Total %	Total			Total	1 yr & under		Total	1----2 yrs		Total	2----3 yrs		Total	3----5 yrs	
			Boys	Girls		Boys	Girls		Boys	Girls		Boys	Girls		Boys	Girls
1 Abscess of Ear	1.4	7	3	4	2	2		2	1	1				3		3
2 Adenoids	8.8	44	24	20	3	2	1	7	3	4	9	2	7	25	17	8
3 Adenitis	2.8	14	7	7	2	1	1	4	3	1	5	1	4	3	2	1
4 Adenitis, Cervical (1)																
5 Adenitis, General (2)																
6 Adenitis, Peri-Bronchial(9																
7 Adenitis, T. B. (2)																
8 Anaemia	.8	4	2	2	1		1	1	1		2	1	1			
9 Blepharitis	.4	2	1	1										2	1	1
10 Bronchitis	2.0	10	6	4	2	1	1	3	3					5	2	3
11 Conjunctivitis	.2	1	1	0										1	1	
12 Constipation	.4	2	1	1				1	1					1		1
13 Coryza	13.2	66	30	36	11	5	6	22	10	12	15	4	11	18	11	7
14 Debility	.4	2	1	1										2	1	1
15 Deformity of Foot	.4	2	1	1										2	1	1
16 Eczema	2.6	13	10	3	2	2		6	6	1	2	1	1	3	2	1
17 Endocarditis	3.4	17	11	6	1	1		1		1	1	1		14	9	5
18 Elongated Coccyx	.2	1	1								1	1				
19 Epilepsy	.2	1	1					1	1							
20 Feeble Mind	.4	2	1	1				2	1	1						
21 Flat Foot	1.	5	1	4				1		1	1		1	3	1	2
22 German Measles	.2	1		1	1		1									
23 Heart, Congenital	1.2	6	1	5				1		1	1		1	4	1	3
24 Hernia, Umbilical	1.2	6	3	3				5	2	3				1	1	
25 Hypo Spadias	.6	3	3	0				1	1		1	1		1	1	
26 Ichthyosis	.6	3	0	3										3		3
27 Idiocy, Microcephal	.6	3	3	0				2	2					1	1	
28 Infected Finger	.2	1	1	0										1	1	
29 Impetigo Contagiosa	.6	3	2	1							1		1	2	2	
30 Intestinal Indigestion	1.2	6	4	2	1	1		2	1	1	1	1		2	1	1
31 Malaria	.2	1	1	0							1	1				
32 Mumps	.2	1	1	0							1	1				
33 Naevus	1.	5	4	1	1	1		2	2					2	1	1
34 Nasal Obstruction	3.6	18	12	11	1		1	5	4	1	7	4	3	10	9	6
35 Old Empyema	.4	2	1	1										2	1	1
36 Otitis Media	2.6	13	8	5	3	2	1	4	3	1	1		1	5	3	2
37 Paresis	.2	1	1	0	1	1										
38 Pediculosis	17.	85	38	47	1		1	9	9		14	6	8	61	23	38
39 Pharyngitis	1.4	7	1	6	1		1	3		3	2	1	1	1		1
40 Phimosis	3.	15	15	0	2	2		6	6		2	2		5	5	
41 Pin Worms	1.4	7	1	6				2	1	1				5		5
42 Prepuce, Adherent	1.6	8	8	0	1	1		4	4					3	3	
43 Rhinitis, Chronic	.6	3	3	0							1	1		2	2	
44 Rickets, Active	38.6	193	90	103	24	5	9	62	47	36	35	17	18	52	11	41
45 Rickets, Old	9.	45	33	12				4	3	1	9	6	3	2	24	8
46 Scabies	.2	1	1	0										1	1	
47 Short Leg	.2	1	0	1	1		1									
48 Shoulder, Displaced	.2	1	0	1										1		1
49 Shoulders, Round	.4	2	1	1										2	1	1
50 Strabismus	1.2	6	4	2				1	1		1	1		4	2	2
51 Syphilis, Congenital	.2	1	1	0	1	1										
52 Teeth, Carious	19.4	97	42	55				2	1	1	7	3	4	88	38	50
53 Thrush	.4	2	1	1				2	1	1						
54 Tonsils, Enlarged	15.	76	31	44	2	2		10	8	2	18	4	14	45	20	25
55 Tonsilitis	.2	1	1	0							1	1				
56 Tumor, Abdominal	.2	1	1	0							1	1				
		827	424	403	85	40	25	196	122	74	141	62	79	425	200	225

By this table it is shown that 13.2% of the children were suffering from coryza, that 17% had pediculosis, that 19.4% had carious teeth, that 15% had enlarged tonsils, and that 38.6% had active rickets, the greatest number of which were between the ages of one and two years.

TABLE VI.

Defects Found in Children Under One Year of Age	Additional Defects Found in Children Between One and Two Years	Additional Defects Found in Children Between Two and Three Years	Additional Defects Found in Children Between Three and Five Years
Adenoids			
Tonsils			
Coryza			
Rickets			
Endocarditis, Chronic			
Bronchitis			
Adenitis			
Phimosis			
Eczema			
Prepuce, adherent			
Otitis Media			
Naevus			
Intestinal Indigestion			
Congenital Syphilis			
Paresis			
Abscess of Ear			
Nasal Obstruction			
Anemia			
German Measles			
Pharyngitis			
Short Leg			
Pediculosis			
	Feeble Mind		
	Idiocy		
	Epilepsy		
	Pin Worms		
	Hypospadias		
	Hernia		
	Enlarged Epiphysis		
	Constipation		
	Strabismus		
	Thrush		
	Carious Teeth		
	Old Rickets		
	Congenital Heart		
	Malaria		
	Flat Foot		
		Abdominal Tumor	
		Tonsillitis	
		Elongated Coccyx	
		Chronic Rhinitis	
		Mumps	
		Impetigo	
		Suppurating Teeth	
			Debility
			Round Shoulders
			Infected Finger
			Scabies
			Blepharitis
			Conjunctivitis
			Deformity of Foot
			Old Empyema
			Right Shoulder Displaced
			Ichthyosis

In this table are shown the defects which occurred at different years, and demonstrates the need of health supervision until the child comes under the care of the school physician.

LIST OF NATIONALITIES OF CHILDREN UNDERWEIGHT ACCORDING TO HEIGHT.

American	181*	Denmark	2
Irish	85	Portguese	5
Italian	20	Newfoundland	6
Scotch	7	Russian Lithuanian	2
Russian	33	Armenia	2
Canadian	9	West Indies	7
Nova Scotia	6	Sweden	2
Poland, Russian	7	New Brunswick	2
P. E. Island	1	Poland	1
Austrian	7	Jamaica	2
English	15	Unknown	9
Norwegian	1		
German	3	TOTAL	416
Finland	1		

* Twenty-six of whom are colored.

HOME VISITS.

One week before the clinics opened, four public health nurses began to visit the homes of the Roxbury children for the purpose of making the explanations necessary to get the children to the clinics, to book definite dates for their examination, and also to get and record facts about the homes which would be helpful in judging of the conditions under which these children live. It was difficult visiting to do and it required skill to get most of the necessary facts in one visit. This information could not be verified, but was, on the whole, pretty freely given.

An effort has been made to grade the homes on the basis of the following factors: Nationality, occupation, number in family, number of rooms, amount of income and rent. A budget worked out at Columbia University, and published in January, 1919, was used as the basis of comparison in making the classification with results as follows:

A	Homes above border line with large margin of income	22
B	Homes above border line with small margin of income	40
C	Homes on border line	129
D	Homes below border line	118
X	Homes which could not be classified	94
TOTAL		403

The term "border line" is used in reference to the homes where the visits showed that the families were not suffering for the necessities of life, but were getting what they needed. The homes were comfortable and the children were reasonably well dressed.

The number of underweight children found in each classified group are as follows:

A	20
B	38
C	136
D	133
X	89

HOME CARE.

A glimpse of the home care in this group is afforded by the table below:

Class	No. of Homes	Mothers Work Out of Home	Ave. Bed-Time Hour, P.M.	Daily Rest Period for Children 3-6 Years	Play in Street	Play in Yard	Play in Playground	No. of Homes where Children are Too Young to Play
A	22	0	7-8	12	7	11	0	4
B	40	0	7-8	24	19	14	0	7
C	129	3	7-8	28	61	49	5	14
D	118	10	8-9	31	66	48	2	2
X	94	24	7-8	19	29	37	2	26
Total	403	37		114	182	159	9	53

Under "Home Care" note that 182 children play in the street because they have no other place to play, and only nine play in a playground, which brings to mind again the fact that a greater number of small playgrounds are needed, that only 114 of the children between the ages of three and six have a daily rest period.

"These under-nourished children are unable to store up in one rest period sufficient energy or vitality to carry them through the day."*

FOLLOW-UP WORK.

In accordance with the Committee's policy of not creating new machinery where an agency was already in existence, the children from the Roxbury clinics were referred to the following agencies in Boston:

The Baby Hygiene Association	281†
The Children's Hospital	35
Forsyth Dental Infirmary	56
Boston Dispensary	53
Private doctors	70
City Hospital	4
Homeopathic Hospital	1
TOTAL	500

† 100 between 3 and 5 years of age.

Once a month each agency is to report to the Child Welfare Committee the exact condition of each child to which it has rendered service, and if the child is transferred to another agency, that fact also will be reported. By means of this system, the Child Welfare Committee aims to keep a record of each child and to follow the entire group until such time as the children's condition warrants discontinuance.

COMMUNITY COUNCIL.

The close of the war put an end to the hope of forming in Roxbury a Child Welfare Community Council, to which the results of the above study could be referred. Such a group could not only help the mothers to secure for themselves and children medical or other help, but would be available to carry forward educational work and build up a system of supervision for the children of the district. Such a Council could be a real force for giving the children of that community the best possible start in life. But the money at the disposal of the Child Welfare Committee was not sufficient

* Malnutrition and Health Education. David Mitchell, Bureau of Educational Experiments, New York.

to perfect a Community Council. The Committee hopes, however, that the facts brought out in this study will strengthen the desire for such a Council, existing among some of the child-welfare organizations in Boston. Many families in Grade D need only such friendly advice and intelligent direction as an interested local body could give.

The Committee feels that the evidence furnished by the study of pre-school children of Roxbury gives sufficient indication that the need of health supervision for children under six years of age is very great. As Roxbury is an average community, it is safe to say that their physical condition is a fair index of the health of children of the same age in Greater Boston and elsewhere.

The Committee wishes to extend thanks for the valuable assistance given by the Baby Hygiene Association, the Roxbury Neighborhood House and the Red Cross Motor Corps.

They also wish to express their indebtedness to the doctors and nurses for their enthusiasm and interest, which have been of the greatest assistance in the work of the Committee.

Respectfully submitted,

HARRIOTT P. CHURCHILL.
(Mrs. Donald Churchill.)

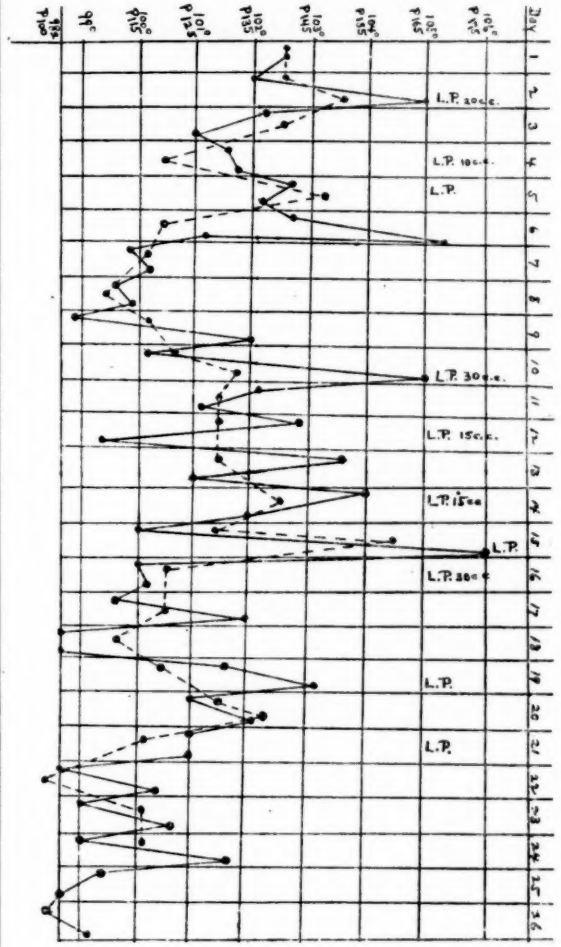
Clinical Department.

CASE OF PNEUMOCOCCUS MENINGITIS, WITH RECOVERY.

BY A. G. GOULD, M.D., AKRON, OHIO.

IN view of the high mortality incident to pneumococcus meningitis, a case with recovery is worthy of note. The duration of the disease was about four weeks, with variations in temperature from normal to 106°, as seen by accompanying chart. Therapy consisted of lumbar puncture with substitution of warm normal saline solution for the spinal fluid withdrawn, digitalis, sodium salicylate and bicarbonate, ice cap, and sponge baths for pyrexia.

Following each lumbar puncture there was a drop in temperature and pulse and general improvement in condition, most noticeable in the relief of the severe headache. The temperature could be used as a reliable indicator of the need for lumbar puncture.



Course, March 18, 1919, to April 16, 1919.
Solid line=temperature course.
Broken line=pulse record.
L. P.=lumbar puncture.

CASE.

March 18, 1919. Patient, E. C., boy, aged 3 years. Past health had been good. Both parents well and in good physical condition. For several days patient had a "cold" and a cough, with fever. Today, he vomited and was delirious. T. 102.5°, P. 140, R. 30. Marked prostration and slight cyanosis of lips. Signs of broncho-pneumonia over the right upper front.

March 19, A.M., T. 102°, P. 140, R. 30. During the afternoon the parents noted some tremor and a slight convulsion of arms and legs consisting chiefly of child becoming very rigid and throwing his arms over his head. 5 P.M., T. 105°, P. 152, R. 50. Positive neck sign and Kernig more marked on left than on right. Some internal strabismus of left eye. Both eyeballs at times were drawn upward until iris no longer could be seen. Patient was removed to Children's Hospital and lumbar puncture was per-

formed. A cloudy fluid under considerable pressure was obtained. Bacteriologically, pneumococci in great numbers and a few staphylococci were found. Prior to obtaining the bacteriologist's report, 20 c.c. of antimeningococcus serum was given intraspinally. March 20, signs of pneumonia clearing up. March 21, 3 m. antipneumococcus vaccine subcutaneously. March 22, cries out frequently and is very restless. Spinal fluid is today a pure culture of pneumococci; 5 m. antipneumococcus vaccine subcutaneously. March 23, more rational. March 27, T. 105°, P. 132, R. 30. Neck very rigid. Slight left Kernig. March 28, meningeal signs absent. March 29, restless and talking in delirium all night; 4 A.M., T. 104.2°, P. 140, R. 36; slight convulsion lasting a few seconds. March 30, noisy and nervous when awake. April 1, A.M., T. 100°; 7 P.M., T. 106.2°, P. 160, R. 28; neck rigid. Lumbar puncture fluid under much pressure. 8 P.M., T. 104.2°, P. 120, R. 22. April 13, removed to home. July 11, returned from a visit to grandparents in Alabama, in fine condition.

CONSERVATIVE TREATMENT OF LARGE ADHERENT OVARIAN CYST.

BY E. B. FITZ-GERALD, M.D., BOSTON,
Senior House Officer, Carney Hospital.

[From the Gynecological Service, Carney Hospital.]

EVERY now and again an abdominal cyst is observed, usually of large size and ovarian in origin, which, through obstruction to its blood supply or its distribution or through infection, becomes universally adherent to the abdominal peritoneum and abdominal contents.

To shell this tumor off from the abdominal peritoneum and separate it from the many and often firm adhesions to abdominal viscera means an amount of shock which is usually fatal, the patient dying on the table or a few hours after the operation. Should the shock be weathered a violent septic peritonitis follows, caused by the foul contents of the tumor which it is impossible wholly to keep out of the abdominal cavity while enucleation is being done.

CASE No. 3398. Admitted May 23, 1919. Laundress; aged 54 years. Menstruation began at 15; was always normal and ceased in 1915. No vaginal discharge. For nine months off and on had been treated for "intestinal indigestion." Occasionally of late has had colicky pains in the abdomen, especially noticeable during defecation. General health excellent.

Palpation revealed a large very firm tumor extending up above the umbilicus. Through the vagina a hard irregular mass filling the upper part of the pelvis could be felt. No fluctuation was detected. The diagnosis rested between a fibroid and ovarian cyst. Three days after entrance the abdomen was opened.

When through a small incision in the peritoneum the tumor was found to be cystic and adherent, the incision was enlarged to admit the hand. A chocolate colored fluid, to the amount of 2,000 c.c., consisting of detritus and pus, was siphoned and sponged out of the cyst. Many daughter cysts were broken up. Four gauze handkerchiefs were packed into the cyst cavity and the incision closed around them. The pathologist found no evidence of malignant disease.

In three days the drainage was removed, cavity washed out with normal salt solution, followed immediately with Dakin's solution, a small portion of which was left in and the incision kept open with a gauze wick. After ten days with this treatment, during which time the cyst cavity had shrunk and the irrigating fluid was returning clear, there was a slight chill, the temperature rose to 102° F., pulse to 122, and respirations to 26. To insure free drainage a rubber tube the size of the thumb was inserted into the cyst cavity. In three days the temperature and pulse were normal and the discharge very purulent.

To "cut" the pus and facilitate drainage a 1% NaCl. and a 2.5% NaCit. solution were used.

Twenty-seven days after the operation the cyst cavity held 125 c.c. This cavity slowly shrunk down to a sinus which was closed by packing with bismuth paste. The patient was in the hospital six weeks and reported as an out-patient three times a week for six weeks.

Medical Progress.

RECENT PROGRESS IN NEUROLOGY.

BY ISADOR H. CORIAT, M.D., BOSTON.

FEEDING IN MYASTHENIA GRAVIS.

G. H. Monrad-Krohn.

THE authors' abstract, taken from an article in one of the Scandinavian medical journals

and published in the *Journal of Nervous and Mental Diseases* (August, 1919), discusses many practical points in the treatment of this serious disease, particularly concerning the nutrition of the patient.

He points out that the result of the electrical examination (myasthenic reaction) should be given its practical application in the treatment and particularly in the feeding of the patient. During the feeding a nurse should always be present and see that when the patient has swallowed one mouthful of food, a sufficient interval (2 to 4 minutes according to the gravity of the case) is allowed to pass before the next mouthful is given. This period of rest between each mouthful gives the muscles concerned in chewing and swallowing an opportunity to recover their strength after each effort. As long as the food is not so hard that mastication becomes an effort, it does not matter whether the food be solid or liquid. The patient should always be spoon fed. It is unwise to allow a myasthenia gravis patient to drink out of a cup or a glass, as this produces a series of deglutition reflexes following close upon one another. This may produce abnormal fatigue with choking and consequent bronchopneumonia. In the attacks of dyspnoea, the best treatment is prolonged artificial respiration. This does not seem to interfere with the recuperation of the abnormally tired muscles. Electrical stimulation of the phrenic nerve is absolutely contraindicated, as this may produce a myasthenic fatigue of the diaphragm. Tube feeding is prohibited. If the feeding by mouth does not provide sufficient nutrition, rectal feeding should be used.

(This theory of intervals of rest in the feeding of a myasthenic patient is perfectly sound. Both in voluntary activity and by electrical stimulation, the muscles in the disease fatigue very quickly, but after a rest of a minute or two, they can again be voluntarily contracted or will respond to the faradic current. In our experience in the treatment of myasthenia gravis, we have not only insisted on liquid food and soft solids, but at the same time have reenforced the rest of the affected muscles by prohibiting talking as much as possible and requesting that communications be carried on by writing instead of by speech. Since in the severe cases, starchy foods are not well digested, because of insufficient mastication and mixture with saliva, produced by the rapid fatigue of the muscles, the patient either may keep starches in the mouth as long as possible to mix them with saliva, or in the place of that an artificial diastatic ferment, such as taka-diastase, might be found useful.

The same rules concerning feeding should be applied to the closely related disease of progressive bulbar paralysis.—I. H. C.)

CORPUS LUTEUM IN NEUROLOGICAL PRACTICE.

H. Climenko, *Endocrinology*, Vol. III, No. 1, 1919.

In this paper only the so-called "nervous syndrome" associated with disturbed sexual gland activity is considered. Nine cases in all were studied. The first and fourth cases were those of a so-called "menstruation insanity" as described by Krafft-Ebing and where the corpus luteum extract seemed to have curative effect. The second case was one of hysteria with mechanical obstruction in the uterus. In this instance the effect of the administration of corpus luteum was very questionable. In the third case, termed "a mild type of manic-depressive insanity," the patient began to improve soon after the administration of the glandular extract. The sixth and seventh cases were polyglandular disorders, in which the cessation of menstruation was merely an accompanying symptom. The other cases suffered from vague neurotic disturbances at the menstrual period, and these cases were most promptly benefited by the corpus luteum extract. As a control, the administration of the drug to male neurasthenics, multiple sclerosis and in the early stages of dementia praecox, was without effect; neither did it affect the blood pressure in the arteriosclerosis of male and female patients. It was found that two grains was as large a dose as it was necessary to use. Hypodermic preparations did not give as good results as the drug given by the mouth.

Climenko concludes that the corpus luteum acts best when there is reason to believe that the native corpus luteum is still present, but when menstruation is discontinued by virtue of disturbances in other ductless glands, corpus luteum will not produce menstruation.

THE MECHANISTIC CLASSIFICATION OF NEUROSES AND PSYCHOSES.

Edward J. Kempf, *Journal of Nervous and Mental Disease*, Vol. L, No. 2, Aug., 1919.

The system of classification proposed is based essentially on the integrative functions of the nervous system and maintains that the same

forces which build up a personality when harmoniously integrated, cause its deterioration when unadjustable conflicts occur. According to this classification, the neuroses have been differentiated with five distinct types, as follows:—

1. Suppression neuroses, characterized by the individual being clearly too vaguely conscious of the nature and effect upon himself of his ungratified cravings (example—anxiety neurosis).

2. Repression neuroses, in which the individual attempts to prevent the automatic cravings from causing him to be conscious of their nature or needs and influencing his personality (example—compulsion and fear neuroses).

3. Compensatory neuroses, when the individual feels that he has cravings that are socially inferior and detrimental and initiates a compensatory reaction which is disguised as a protective or comforting mechanism (example—paranoid types.)

These three types as a group are designated as benign neuroses. The second group, that of pernicious neuroses, is divided into

4. Regression neuroses, in which the individual gives up or yields to the struggle and regresses to a preadolescent or infantile functional level (example—allied dementia praecox types).

5. The dissociation neuroses, which comprise those cases where repression reaches the point of dissociation and finally dominates the personality (example—hysteria).

PSYCHOANALYTIC TREATMENT OF BORDERLAND NEUROSES AND PSYCHOSES.

L. Pierce Clark, *The Psychoanalytic Review*, Vol. VI, No. 3, July, 1919.

This short paper consists of practical remarks in the utilization of the psychoanalytic method in the treatment of borderland neuroses and psychoses. The types of cases studied are manic-depressive insanity (periodic depressions), mental torticollis and dementia praecox.

In the periodic depressions it is necessary to enquire carefully into the conscious and foreconscious settings of the patient's difficulties, particularly those difficulties which seem to act as precipitating or upsetting causes in the periodic depressions. These cases are more difficult of analysis than the hysterical neuroses, but the analysis furnishes material for advice concerning readjustment and reformulation of the attitude towards various life problems. The cases of mental torticollis presented still greater difficulties not only because of the resistance, but because the roots of the neurosis were so deeply seated. In dementia praecox, the chief difficulty of analysis lay in the inaccessibility of the patient's conscious and unconscious mental life, since many of these cases presented themselves for treatment at a time when the mental deterioration was too far advanced.

(My own experience has been that the periodic depressions should be psychoanalyzed not during the period of depression but during the period of remission, in an attempt to eliminate the factors which might precipitate a future attack. In mental torticollis, the effects of psychoanalysis in clearing up the muscular spasm have been gratifying, particularly in those cases where the usual orthopedic and re-educational methods had failed. In dementia praecox, as has been shown in my paper already referred to in "Progress" only the early or mild cases can be benefited by psychoanalysis. In a previous paper on the psychoanalytic treatment of retarded depression (*American Journal of Insanity*, Jan., 1919), Clark makes a plea for an intensive psychoanalysis in cases of retarded depressions. As a result of his experience, he is convinced that such individuals will make a sounder recovery from a specific attack, and recurrences in after life can often be avoided.—I. H. C.)

EXPERIMENTAL HYDROCEPHALUS.

Walter E. Dandy, Annals of Surgery, Vol. LXX, No. 92, Aug., 1919.

After a brief description and history of the mechanical factors which enter into the etiology of hydrocephalus, Dandy attempts to solve the problem by the production of all types of hydrocephalus through the precise experimental methods. The experiments were conducted on dogs, and the following conclusions were drawn:

Hydrocephalus has been produced by placing an obstruction in the aqueduct of Sylvius and dilation of the third and both lateral ventricles results. The occlusion of one foramen of Monroe is followed by a unilateral hydrocephalus. If the choroid plexus of one lateral ventricle is completely removed at the time the foramen of Monroe is occluded, not only does no dilation occur, but the entire lateral ventricle collapses. This is the only absolute proof that the cerebro-

spinal fluid is formed from the choroid plexus and at the same time it proves that the ependyma does not secrete cerebrospinal fluid.

If the choroid plexus of both lateral ventricles is removed and an obstruction is placed in the aqueduct of Sylvius, hydrocephalus still results in the third and both lateral ventricles, but at a reduced rate. The fluid forms from the choroid plexus of the third ventricle, but cannot escape into the subarachnoid space. Cerebrospinal fluid flows in all the cerebral ventricles and it is absorbed almost entirely in the subarachnoid space. The sole communication between the ventricular system and the subarachnoid space is through the foramina of Luschka and the median foramen of Magendie. The phenolsuphonephthalein test will prove conclusively whether the foramina of Luschka and Magendi are opened or closed. Closure of these foramina invariably produces hydrocephalus.

Hydrocephalus follows ligature of the vena magna Galeni if the ligature is placed at the origin of this vein, because of an over-production of cerebrospinal fluid. In other types of hydrocephalus both obstructive and communicating, the accumulation of fluid is due to a diminished absorption of cerebrospinal fluid.

NON-PARETIC NEUROSYPHILITICS. TREATED BY INTRAVENTRICULAR INJECTIONS OF SALVARSANIZED SERUM.

A. L. Skoog and Karl A. Menninger, *Journal of Nervous and Mental Disease*, Vol. L, No. 2, August, 1919.

This paper deals with a selected group of patients treated for neurosyphilis by the intraventricular method. The cases were minutely studied over a period of three months. Both the acute and chronic forms were represented and all the cases were well advanced, in fact some of the patients faced an extremely bad prognosis. After a discussion of the serological and surgical technique, followed by an outline of the cases in the series treated, the following conclusions are given:

1. Twelve cases of non-paretic neurosyphilis were treated intensively by intracerebral injection of salvarsanized serum.

2. Serum salvarsanized *in vivo* was extensively used. Local anesthesia is utilized for trephining; and the parietal area is selected.

3. The reactions to treatment were, as a rule, not severe, but occasionally became quite alarming and even fatal. The symptoms consist usually in slight febrile reaction, more or less headache, and variously located pains sometimes accompanied by a toxic meningitis of short duration.

4. The 12 cases presented embrace 4 cases diagnosed vascular types of cerebral syphilis, 2 tabes dorsalis, 1 idiot, and 5 cases of unclassified neurosyphilis, 2 of which may be tabo-paresis.

5. The clinical results of treatment showed marked improvement in 2 cases, slight improvement in 6, none at all in 2, and fatality in 2 cases. The improvement showed no tendency to follow diagnostic classes.

6. The laboratory returns showed as a result of the treatments:

(*a*) Wassermann changed in
blood serum in 50 per cent. cases;
spinal fluid in 50 per cent. cases;
cerebral fluid in 50 per cent. cases.

(*b*) Gold sol in reaction (spinal fluid)
diminished in 40 per cent.;
intensified in 30 per cent.;
(irregular in cerebral fluids).

(*c*) Globulin in cell counts of spinal fluid
not markedly altered.

7. The laboratory data indicated marked improvement in two cases, slight improvement in 5; none at all in 3.

8. The clinical and laboratory data in point of response to treatment would appear similar numerically; but a study of individual cases shows that they agree precisely in only 20 per cent. of cases; and differ completely in 50 per cent., showing a tendency to be reciprocal.

9. It is apparent from the differences in the spinal and cerebral fluids that at least in certain pathological conditions, such as those presented, there is an interference in the communication channels between the ventricles and the fluid spaces of the spinal chord.

10. Two cases died: one probably as a direct result of the treatment, the other possibly as an indirect result.

11. On the whole, the brief but intensive treatment appears to have given encouraging results, which possibly would have been much more gratifying had it been longer continued. The improvements were moderate rather than extreme (but no cases were made worse save the two who succumbed), either from the laboratory or clinical standpoint. Two cases with rather remarkable improvement are included. One

gratifying feature is the enthusiasm with which most of the patients coöperate in and appreciate the treatments. This is in one way a drawback, as they are apt to consider themselves so much improved that further treatment is unnecessary.

Book Reviews.

Studies from the Rockefeller Institute for Medical Research. Reprints, Volume XXIX. New York: The Rockefeller Institute for Medical Research. 1918.

The investigations carried on at the Rockefeller Institute open to the profession new and promising fields of scientific research. In order to make these studies more readily available, reports which are first published in various journals are collected in volumes designated, *Studies from the Rockefeller Institute for Medical Research.* This volume, Number XXIX, contains articles of unusual interest in pathological and bacteriological subjects, in physiology and pharmacology, chemistry, experimental surgery and biology, and animal pathology.

A report written by Harold L. Amoss, M.D., considers the question of providing federal standardization for preparations of the antimeningococcic serum which has been used with beneficial results in the treatment of epidemic meningitis. Five samples of this serum which were tested showed the striking inferiority of the commercial to the non-commercial products. Suggestions for standardizing this serum, and advice on the methods of administering it are included in this report.

The problem of the mode of infection in poliomyelitis has been explained in various ways. The general results of chemical observation and experiment, however, have led to the conclusion that the microbic cause is conveyed from one individual to another by personal contact. A report by Edward Taylor, M.D., and Harold L. Amoss gives a detailed description of cases which demonstrate the carriage by healthy persons of the virus of poliomyelitis. Previous experiments made by Wickman, Flexner, Lewis, and others lead to similar conclusions.

The contributions of Jacques Loeb to this volume are of particular value. An investigation conducted by Loeb and John H. Northrop by quantitative experimental methods, tends to prove that the "instinctive" motions of animals to light are phenomena of automatic orientation (heliotropism) and a function of the constant intensity of light—the exact expression of the function being the Bunsen-Roscoe law of photochemical action.

A report on "The Influence of Food and Temperature upon the Duration of Life," by Loeb and Northrop, considers by quantitative methods the causes which determine the natural duration of life. Experiments with fruit flies show that the temperature coefficient for the duration of life is approximately identical with the temperature coefficients for the duration of the larval and pupal stage within the limits where development is normal. It was discovered that food, as well as temperature, influences the duration of life. An adequate food supply for the growing larva includes yeast, while for the adult fly which no longer grows, "glucose-agar" (with or without yeast) is sufficient. A paper by Northrop presents further data on the growth and duration of life of an organism. His experiments show that if the larval period is prolonged by inadequate feeding the total duration of life can be prolonged. Two other articles contributed by Loeb consider "The Diffusion of Electrolytes through the Membranes of Living Cells," and "Fecondation et Phagocytose."

Another paper, "Observations on Kidney Function in Diabetes Mellitus," by Reginald Fitz, M.D., reports studies on renal function in diabetes under varying conditions of glycosuria, hyperglycemia, and acidosis.

The Soldier's Heart and the Effort Syndrome. By THOMAS LEWIS, M.D., F.R.C.P., F.R.S., D.Sc. New York: Paul B. Hoeber. 1919.

With the advent of the present war and the call to military service of men engaged in all kinds of occupations, the medical officers who treated patients suffering from disturbances of the cardio-vascular system found many conditions frequent in soldiers which in civilian experience were comparatively rare. Realizing the great benefit which the successful application of many remedial measures in military hospitals would be to the civilian population in the years to come, the author has made this collection of war-time notes and presented his important observations to the profession under the following headings: Introductory Remarks; The "Effort Syndrome;" Its Symptoms and Signs Contrasted with those of Heart Disease; Etiology of the "Effort Syndrome" and of Heart Disease in Soldiers; The Diagnosis of Heart Disease in Soldiers; Prognosis and Treatment in the "Effort Syndrome"; Some General Considerations; Medical Reports on Discharged Soldiers and on Routine Examination of the Hearts in Recruits, etc. The book is clearly and intelligently written and should take its place with the author's previous works as a valuable contribution to present-day knowledge concerning the capacity and clinical disorders of the heart.

The Johns Hopkins Hospital Reports. Volume XVIII, Fasciculus II. Department of Pathology. Baltimore: The Johns Hopkins Press. 1917.

The work of the Department of Pathology of the Johns Hopkins University and Hospital has been collected and published in Volume XVIII of the Johns Hopkins Hospital Reports. All material unpublished up to the time of this report is presented in detail in this volume, and many articles previously published are again reprinted in full instead of in abstract form.

Among the articles of particular interest may be mentioned "The Rôle of the Autopsy in the Medicine of Today," by W. C. Winternitz, who discusses the importance of the systematic performance of autopsies on the progress of physical diagnosis and scientific therapy. He reviews briefly the historical development of pathological anatomy, and points out the value of autopsies to the physician, the hospital, the family, and the community. An article by Stanhope Bayne-Jones on "The Blood Vessels of the Heart Valves" presents positive evidence of vascularity of the valves of the heart, with historical and critical review of the various controverted aspects of this subject. A third contribution of interest is the report of two fatal cases following Percy's low heat treatment of carcinoma of the uterus, by V. N. Leonard and A. B. Dayton. As only one case treated by this method and terminating in death has been reported thus far, it has been considered important that the histories of the two fatal cases reported here should be described.

"Studies of the Metabolism of Cells in Vitro," by M. T. Burrows and C. A. Neymann, indicate that amino-acids show evident toxicity towards growing cells, inhibiting their growth and finally killing the cultures. "The Significance of the Lunula of the Nail," reporting the observations of M. T. Burrows during his study of the structure of the nail and its environment, attempts to explain the conditions which regulate its continuous growth throughout the life of the individual. A report of attempts to cultivate bladder and prostatic tumors outside the body has been presented by M. T. Burrows, J. E. Burns, and Y. Suzuki. This is an important experiment which has not previously been undertaken, and is important in that the facts discovered may prove to be of importance in gaining a better understanding of the conditions essential for the growth of body cells and the general structure of the cells.

In reporting their study of a small outbreak of poliomyelitis in an apartment house, occurring in the course of an epidemic in a large city, M. T. Burrows and E. A. Park point out several features of unusual interest: the disease appeared in all five children of one family; a variety of forms of the disease manifested itself; there was an absence of change in the spinal fluid in three of the cases; and the proportion of non-paralytic forms of poliomyelitis was unusually large.

The observations of these investigators are of considerable value. Many of the articles included in this annual volume are illustrated by numerous plates and text figures. The publication of this estimable collection of pathological research material should be greatly appreciated by the profession.

Abstracts of War Surgery. Prepared by the Division of Surgery, Surgeon-General's Office. St. Louis: C. V. Mosby Company. 1918.

The Surgeon-General's office, through the Division of General Surgery, has prepared an abstract of the war literature of general surgery that has been published since the declaration of war in 1914. As an emergency war measure one hundred copies of abstracts of the important general surgical papers bearing on war surgery were distributed to various instructors in our Army surgical schools and to war hospitals. This was done in order that much of the excellent work developed by the French, English and Italians might be appropriated by our medical personnel at a time when ready reference material was necessary. But the demand for these abstracts was so great that it was deemed advisable to meet this approval in printed form. As a result we have in this volume, in a condensed form for ready reference, much of the excellent work accomplished by the medical corps of the allied armies. It is a remarkable collection of abstracts from what have been regarded as the best among important articles written on modern war surgery. Many of these papers have been abstracted from the medical and surgical journals at length. The problems of the development of British surgery at the front and in the hospitals on the lines of communication in France have been outlined in the beginning of the book under "General Topics." The fact that these problems and difficulties were met largely by the surgeon himself, because of the lack of knowledge of such injuries as he was called upon to treat, provides much that is interesting in the display of ingenuity in solving these problems. Aside from the strictly scientific viewpoint, this book is an historical record of achievement under most trying conditions. The papers abstracted are arranged under the following headings. Wound Infection and Treatment, Tetanus, Gas Gangrene, Abdominal Injuries, Chest Injuries, Cardiovascular Surgery, Injuries to the Joints, Fractures, Burns, Anesthesia in Warfare Trench-Foot, Foreign Bodies, Peripheral Nerve Injuries, Injuries to the Jaws and Face.

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PROPOSED MASSACHUSETTS HEALTH EDUCATION LAW.

THE declining birth rate of the white race is becoming a matter of serious import. In France the vital statistics for some years have shown more deaths than births, and even in our own country the excess of births over deaths is at the present time less than it has been and should be. France and England are profiting by the lesson which the war has taught them, and have already embarked on campaigns for restoring the physical fitness of their people. Is it not time for us to appreciate the significance of the fact that the draft showed more than thirty-five per cent. of our youth to be defective? In Massachusetts, forty-seven per cent. were rejected. These men were the school boys of yesterday.

In order to improve the physical condition of the school children of today, the National Physical Education Committee has proposed two health education laws of far-reaching importance. Their purpose is to assist local organizations in starting good Child Health Programs in their own home towns, and to lay the framework necessary for the organization of a broad and uniform Health Education Program in our public schools. For this end, legislation must provide for a director of health education and physical activities in our Department of Education, local supervisors to assist the director, one or more school nurses in every town, and courses in simple health habits in our normal and public schools.

Unsuccessful attempts have been made previously to pass legislation which would make this health education possible. In order to arouse the State to a recognition of the present need of this legislation, a Health Education Committee is being formed to secure the passage of the following two bills, which are to be introduced this winter:

Bill I. Proposed Massachusetts Health Education Law:

1. The Department of Education, after consultation with the State Department of Health, shall establish minimum rules and regulations and courses of instruction for the teaching of Health Education in the public schools and the normal schools of the Commonwealth. This shall include instruction in personal and community health, and in physical activities related to healthful living and normal recreation.

2. The Commissioner of Education, with the approval of the Board of Education, shall appoint a director of Health Education, with necessary associates, who shall be qualified to supervise and direct the work of Health Education and physical activity.

3. The director of Health Education shall, under the supervision of the Commissioner of Education, work in close coöperation with the school physicians, public health officers, and civic agencies in promoting child welfare.

4. The School Committees in cities and towns, or group of towns, shall appoint a supervisor of health education, with necessary associates, who shall, under the direction of the School Committee, establish, supervise, and direct systematic courses of instruction in health and physical activity.

5. Each city and town, or group of towns, shall furnish adequate instruction and supervision to provide each pupil with a minimum of 60 minutes of systematic health instruction, physical exercise, and recess play during each school day. The school committee may arrange for the use of the school buildings and grounds after regular school hours as community centers for the promotion of healthy recreation.

6. The State shall provide annually to the State Department of Education a minimum of 3 cents per year per child (6 to 18 years of age) for the promotion, supervision, and inspection of health instruction and directed activity.

Bill II. Suggested Draft for School Nurses:

Chapter 502, 1906, Section 1, as amended, is hereby further amended by adding after the words, "school physician," in the second line, the words "and nurses" and after the words "assign one," in the second line, the words "of each,"—so as to read as follows:—

Section 1. The School Committee of every city and town in the Commonwealth shall appoint one or more school physicians and nurses, and shall assign one of each to each school in its city or town, and shall provide them, etc., etc.

These bills are endorsed by the Commissioner of Education, and the State Department of Health. There is nothing in Bill II that would prevent a group of villages employing one school nurse between them. The Health Education Committee has suggested that in order to help secure the passage of these bills, the following form of resolution be passed by as many interested groups as possible and sent to the State legislators:

Whereas, the examinations under the draft law have revealed the fact that more than one-third of the young men examined were physically unfit for military service, and

Whereas, statistics of the Life Extension Institute and of the Life Insurance Companies show this to be only one evidence of a physical degeneracy prevalent among men and women of all ages, and

Whereas, the strenuous requirements of modern life have an irresistible influence away from natural health-giving habits and vitalizing physical activities, and

Whereas, these unnatural tendencies can be off-set only by the provision of a specially planned and directed program of physical training and wholesome recreation, for both children and adults, therefore be it

Resolved, that we favor the establishment in the Schools of the Commonwealth of Massachusetts of an adequate program of physical education, including instruction in simple health principles and adequate provision for physical activities, and urge our legislators to vote for the appointment of a Director of Health Education in our Department of Education, Local Supervisors of Health Education, and one or more School Nurses for every town or group of towns.

The passage of these bills will make possible the proper physical development of the school children of today, thus safeguarding the health of the Nation's youth of tomorrow.

RECENT EPIDEMICS.

DURING the past three years, there have been three great destructive epidemics of disease which have ravaged the world, claiming probably more victims than the great war and causing incalculable loss in money and human progress. The general characteristics of these epidemics, together with the practical hygienic measures adopted to control them, were reviewed by Dr. Simon Flexner in his address at the meeting of the Congress of American Physicians and Surgeons held in Atlantic City last June. Such a summary of our knowledge is valuable in enabling us to form judgments of the merits of the measures employed in the control of disease, and suggests new points of attack which may prove their efficacy in the future.

The three epidemic diseases which have swept over the world of recent years, proving to be particularly destructive in the western hemisphere, are poliomyelitis, streptococcus pneumonia, and influenza. Dr. Flexner has described their common characteristics, and also the differences in their nature and in the modes of spreading which make necessary careful discrimination in adopting methods of control. Since 1907, our attention has been called to the seriousness of poliomyelitis as an epidemic disease by the constant recurrence of the disease every summer and autumn, culminating in an epidemic of severe proportions in the winter of 1916. Today we have reliable data concerning the nature of the inciting organism and its manner of leaving the infected or contaminated body within the secretions of the nasopharynx chiefly, gaining access to other human beings by means of corresponding mucous membranes. Our knowledge of poliomyelitis has increased rapidly since the publication of Wickman's clinical studies in 1907.

Streptococcus pneumonia, on the other hand, presented during the winter of 1917-1918 a type which had previously been quite infrequent. It apparently first appeared in fatal form most frequently in military cantonments

in the United States, prevailing for a time as a secondary pneumonia following measles, and later becoming so severe that primary streptococcus pneumonia began to arise and spread to the civil population. Dr. Flexner points out that in dealing with this infection, the chief difficulty has been not in discovering the inciting microbe, but in differentiating the streptococci responsible for the epidemic disease from streptococci possessing the ordinary pathogenic properties. Observation in various cantonments has shown *Streptococcus hemolyticus* to be the microbic incitant in almost every case. Dr. Flexner believes it probable that the excessively virulent *Streptococcus hemolyticus* was developed not through the introduction from without of a special kind of micro-organism, but by a process of selection, through successive transfer from one person to another, and by gradual enhancement of its invasive properties.

The case of influenza presents greater difficulties of analysis, since there still exist wide divergencies of belief regarding the nature of the inciting micro-organism and modes of infection. To the casual observer, overlooking the significant incidents that precede wide infection, the apparent swiftness of the onset of the epidemic seems to point to the negation of personal communication. Accurate observation has shown, however, that epidemic influenza follows the common rule of being associated with persons and their migrations. As the early cases are usually not severe, because they are rarely attended by pneumonia, there is frequently confusion in making a diagnosis, and intercourse among the sick and well is unrestricted, thus causing the micro-organism to be disseminated until the entire susceptible element of the population is exposed. Dr. Flexner has remarked that in eastern Russia and Turkestan influenza spreads with the pace of a caravan; in Europe and America with the speed of an express train; and in the future it may be that it will spread with the swiftness of an airship. The rate of transmission of the disease is determined in part by the nature of the transportation facilities, and in part also by the accessibility of various regions. A feature of particular significance in regard to epidemic influenza is its tendency to recur, often involving a secondary pneumonic infection,—streptococci, pneumococci, staphylococci, Pfeiffer's bacilli, and even meningococci, —to which the high mortality is chiefly traceable.

In the case of these three epidemic diseases, it is evident that they are essentially examples of respiratory infections. Dr. Flexner has stated that the problem of protection in diseases of this class can be solved only by methods of personal hygiene, applied on the individual scale of safeguarding one person from another. In the case of poliomyelitis, because of the difficulty in making a prompt and accurate diagnosis of the disease, there often occurs a wide distribution of the infectious agent before preventive sanitary regulations are enforced. Epidemic pneumonia, however, theoretically, should respond to methods of control based upon our knowledge of them. In the case of epidemic streptococcus pneumonia and the pneumonia following influenza, we have to deal not with pathological conditions in which extraneous micro-organisms are introduced, but with exaggerations of sporadic diseases ordinarily prevailing.

It appears that these epidemic diseases survive over long periods of time without attracting any particular attention in fixed localities, their so-called endemic homes. There is reason to believe, for instance, that an endemic form of poliomyelitis exists in northwestern Europe, and a similar one for influenza in eastern Europe, particularly on the border region between Russia and Turkestan. Dr. Flexner has suggested, in view of the difficulties attending the control of these diseases after they have become epidemic, that an effort of central rather than peripheral control should be attempted, for the purpose of eventually eradicating the diseases in the regions of their endemic survival. The possibility of suppressing such a menace to civilized man and future progress is an enterprise worthy of the consideration of all scientifically advanced countries.

MEDICAL NOTES.

NEW YORK HOSPITAL DEFICIT.—The annual report of the United Hospital Fund which has been issued recently discloses the fact that the non-municipal hospitals of New York face a deficit of more than three million dollars. This deficit is reported to be due to the increased

costs of hospital operation and maintenance of free wards. An example of this increase may be cited in the fact that a free patient could be maintained in 1914 at an average cost of $2.02, while in 1918 the average charge was $3.13. It has been estimated that the cost per capita of nearly 150,000 patients to be treated free during the coming year will be about $3.50.

Approximately one hundred and eighty thousand people are ill in New York every day, and probably only about one in ten of those who need hospital care are now getting it. The war has made necessary unusual economizing, and generous extra gifts are greatly needed to enable the hospitals to regain what they have lost and make the necessary advances. The following men have appointed a committee to investigate the problem and overcome the difficulties which threaten the hospitals of New York:

Robert Olyphant, Henry J. Fisher, George Blumenthal, Henry R. Kunhardt, Ivy L. Lee, William Fellowes Morgan, E. H. Outerbridge, James Speyer, Arnold Wood, William H. Kingsley, J. Pierpont Morgan, George Emlen Roosevelt, W. V. S. Thorne, Howard Townsend, Allen Wardwell, Charles A. Wimpfheimer, Albert H. Wiggin, and William C. Breed.

AMERICAN REPRESENTATIVES AT INTER-ALLIED CONGRESS OF SURGEONS.—Dr. George Emerson Brewer, former professor of surgery in Columbia University, represented the United States at the inter-allied congress of surgeons which convened in Paris. For five weeks he resumed his rank as colonel in the medical division of the Army and returned to New York about the middle of November.

WAR CASUALTIES FROM POISON GAS.—A report issued by Surgeon-General Ireland, based on analysis of American casualties in France, states that poison gas is one of the most humane weapons of war; for although 74,779 of the 274,217 battle casualties resulted from gas, the number of deaths was very small—1.87 per cent. as compared with 23.4 per cent. from shell or bullet wounds. These figures indicate that a man suffering from poison gas has twelve times as many chances of recovery as a man put out of action from other causes.

ALCOHOL FOR PHYSICIANS.—It has been stated that the chief of the internal revenue agents has announced that any licensed practitioner of medicine may obtain permits, without giving bond, for the purchase of an amount of alcohol not exceeding two quarts during a period of one year by filing "Form 737" with a collector of internal revenue and executing a sworn statement to the effect that such alcohol is to be used in his practice. There have been complaints that persons ill with pneumonia have been unable to secure the whiskey needed in their treatment because physicians did not know how to get it without violating the law.

SMALLPOX ON STEAMSHIP.—The French steamship *Roma* has been held in quarantine recently at New York because of the discovery of a case of smallpox on board.

ASSOCIATION FOR PREVENTION OF TUBERCULOSIS.—At a recent meeting in Washington of the Association for the Prevention of Tuberculosis, the results of the health crusade conducted through the medium of the public schools were discussed. It was stated that there has been a steady decline in the death rate from tuberculosis in Washington since the work of the Association was begun; it has dropped from 127 per 100,000 in 1910 to 93 per 100,000 in 1917 among the white population, and from 453 to 312 among the colored.

ROCKEFELLER GIFT OF $10,000,000 FOR RESEARCH.—A gift of $10,000,000 has been made by John D. Rockefeller to the Rockefeller Institute for medical research. This is the largest single gift which has been made to the institution and is to meet the growing needs in many lines of work. It will make possible additional research in biology, chemistry, physics, and medicine, and will permit the general enlargement of the scope of the Institute's activities.

The scientific staff of the Rockefeller Institute numbers sixty-five men and about three hundred and ten persons are employed in its technical and general service. All discoveries and inventions made by those in the employ of the Institute are placed freely at the service of humanity. In its war activities the Institute divided its work into the following three classes: (1) establishment of teaching

courses in the surgical treatment of wounds; (2) special research work in bacteriology, immunology, bio-chemistry, or antiseptics, effects of poison gas; and (3) the production of serum on a large scale for treatment of meningitis, pneumonia, and dysentery.

HONOR FOR MAJOR-GENERAL GORGAS.—Major-General W. C. Gorgas has been elected an honorary member of the National Academy of Medicine of Peru.

RETURN OF PROFESSOR ANTON J. CARLSON.—Professor Anton J. Carlson, chairman of the Department of Physiology at the University of Chicago, has returned to his regular work at the University. In 1917, Dr. Carlson was commissioned captain in the Sanitary Corps; he was made major in 1918, and lieutenant colonel in 1919. In the spring of 1919 Dr. Carlson went to Paris and became director of the division of the American Relief Administration known as the Children's Relief Bureau. Since that time he has visited Poland, Czecho-Slovakia, Austria, Jugo-Slavia, Finland, the Baltic States, and parts of western Russia in the interest of child welfare work.

CONTINUED DECREASE IN FRENCH POPULATION.—The vital statistics report for the year 1918 shows that the population of France is continuing to decrease. Without counting the losses from the war, the nation numbers 389,575 less than in 1917. These figures include only the seventy-seven departments of France which were not in enemy occupation. The decline is attributed mainly to the ravages of the influenza epidemic in the latter half of 1918, from which it is computed that about 200,000 persons died. Compared with 1917, there was an increase in marriages to the number of 19,364; but the number of divorces also rose from 5,372 to 8,121.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.—A meeting of the Section on Medical History of the College of Physicians of Philadelphia was held on November 15. "Sculpture and Paintings as Modes of Anatomical Expression" was discussed by Lieutenant-Colonel Fielding H. Garrison, M.C., U. S. Army, Washington, and Dr. Edward C. Streeter, Boston.

APPOINTMENT OF DR. RENSHAW.—Dr. R. R. Renshaw has been appointed assistant professor of chemical research in pharmacology at the Harvard Medical School. Dr. Renshaw was formerly associate professor of organic chemistry at Iowa State College.

IN COMMEMORATION OF SURGEON-GENERAL STERNBERG.—In memory of Surgeon-General George Miller Sternberg, a monument was unveiled at the National Cemetery on November 5. Addresses were delivered by Surgeon-General Merritte W. Ireland, U. S. Army; Brigadier-General Walter D. McCaw, Colonel Edward L. Munson and Colonel Frederick F. Russell, Army Medical Corps, and Dr. George M. Kober, of the George Washington University.

WASHINGTON UNIVERSITY MEDICAL SCHOOL APPOINTMENTS.—The Washington University Medical School has appointed Dr. Eli Kennerly Marshall, Jr., Washington, D.C., formerly associate professor of pharmacology in Johns Hopkins University, head of the Department of Pharmacology. A. W. L. Bray has been made associate in anatomy; Alfred C. Kolls, associate in pharmacology; Edgar Allen, instructor in anatomy, and Edward A. Doisy, instructor in biological chemistry.

APPOINTMENT OF DR. EMIL GOETSCH.—Dr. Emil Goetsch has been appointed head of the Surgical Department of Long Island College, New York. Dr. Goetsch was formerly resident surgeon of the Peter Bent Brigham Hospital, Roxbury, Massachusetts.

LECTURES ON THE HERTER FOUNDATION.—The tenth course of lectures on the Herter Foundation was given at the Johns Hopkins University by Henry Hallett Dale, F.R.S., director of the Department of Biochemistry and Pharmacology, Medical Research Committee on National Health Insurance, London, on the following subjects: November 13, "Capillary Poisons and Shock"; November 15, "Anaphylaxis"; "Chemical Structure and Physiological Action."

IN MEMORY OF LORD LISTER.—Tablets in memory of Lord Lister were unveiled on November 11 by Sir George Makins, president of the Royal College of Surgeons, and Sir J. J. Thomson, president of the Royal Society. The

tablets were executed for University College by Professor Harvard Thomas.

THE WEIR MITCHELL ORATION.—Dr. Charles W. Burr delivered the Weir Mitchell oration at the College of Physicians of Philadelphia on November 1. His subject was "Dr. S. Weir Mitchell as a Physician, a Man of Science, a Man of Affairs, and a Man of Letters."

HONOR FOR SURGEON-GENERAL WILLIAM C. BRAISTED.—Surgeon-General William C. Braisted, U. S. Navy Medical Corps, has been elected an honorary fellow of the Royal College of Surgeons at Edinburgh.

APPOINTMENTS AT CORNELL UNIVERSITY.—The following appointments have been made at Cornell University, completing the organization of the new department of hygiene and Preventive medicine: Dr. Haven Emerson, professor of hygiene and preventive medicine, and director of the department; Dr. James Stevenson Allen, assistant professor of hygiene and preventive medicine, and assistant director of the department; Dr. Frank C. Balderry, medical adviser; Drs. J. Ralph Harris, Lawrence B. Chenowith, Richard Kimpton, Claude E. Case, and John A. Herring, assistant medical advisers for men, and Drs. Margaret D. Baker and Katherine Porter, assistant medical advisers for women.

MEDICAL PUBLICATIONS IN BRAZIL.—A catalogue of all medical publications that have appeared in Brazil within the last hundred years is being compiled by the National Academy of Medicine and the Surgical Society of Rio de Janeiro, and will be distributed at the celebration of the Centenary of Independence, which is to be held in 1920. At the same time, a Congress of Medicine will be held in Rio de Janeiro under the direction of the president of the Medical and Surgical Association, Professor Fernando Magalhaes.

NEW ENGLAND NOTES.

FRENCH ORPHANAGE FUND.—The New England Branch of the French Orphanage Fund has acknowledged total contributions to the amount of $523,658.33.

BEQUESTS TO MEDICAL INSTITUTIONS.—The following bequests were included in the will of the late Mrs. Samuel W. Bridgham of East Providence:

New York Eye and Ear Infirmary, $30,000; Roosevelt Hospital, $15,000; Home for Incurables, Fordham, $20,000; Hospital and House of Rest for Consumptives, Inwood, $10,000; Association for the Aid of Crippled Children, New York, $5,000; St. Luke's Hospital, New York, $10,000; Bar Harbor Medical and Surgical Hospital, $15,000; Rhode Island Hospital, Providence, $10,000; Home for Consumptives, $4,000.

AMERICAN MEMORIAL HOSPITAL FUNDS.—The New England Branch of the American Fund for French Wounded has announced that the funds received for the American Memorial Hospital have reached the following amount, $261,196.68.

BOSTON AND MASSACHUSETTS.

WEEK'S DEATH RATE IN BOSTON.—During the week ending November 22, the number of deaths reported was 193 against 257 last year, with a rate of 12.64 against 17.09 last year. There were 25 deaths under one year of age against 43 last year.

The number of cases of principal reportable diseases were: Diphtheria, 96; scarlet fever, 71; measles, 142; whooping cough, 40; typhoid fever, 5; tuberculosis, 47.

Included in the above were the following cases of non-residents: Diphtheria, 16; scarlet fever, 16; typhoid fever, 2; tuberculosis, 9.

Total deaths from these diseases were: Diphtheria, 3; measles 1; whooping cough, 2; typhoid fever, 1; tuberculosis, 13.

Included in the above were the following non-residents: Tuberculosis, 3.

Influenza cases, 15; influenza deaths, 2.

During the week ending November 29, 1919, the number of deaths reported was 208 against 241 last year, with a rate of 13.62 against 16.02 last year. There were 36 deaths under one year of age against 36 last year.

The number of cases of principal reportable diseases were: Diphtheria, 59; scarlet fever, 65; measles, 145; whooping cough, 38; tuberculosis, 34.

Included in the above were the following cases of non-residents: Diphtheria, 8; scarlet fever 9; measles, 145; tuberculosis, 3.

Total deaths from these diseases were: Diphtheria, 1; measles, 3; whooping cough, 1; tuberculosis, 18.

Included in the above were the following non-residents: Diphtheria, 1; measles, 1; tuberculosis, 1.

Influenza cases, 9.

AWARD OF DEGREES TO MASSACHUSETTS SURGEONS.—At the seventh convocation of the American College of Surgeons held in New York on October 24, the degree of F.A.C.S. was awarded to the following men from Massachusetts:

Charles Roger Abbott, Clinton; William A. Brooks, Boston; Dudley Carleton, Springfield; Arthur Hallam Crosbie, Boston; Hilbert Francis Day, Boston; D. W. Drury, Boston; Martin Thomas Field, Salem; Edgar A. Fisher, Worcester; Henry J. FitzSimmons, Boston; Ralph W. French, Fall River; Joseph Lincoln Goodale, Boston; Charles M. Green, Boston; George Hillard Hill, Worcester; Edward Daniel Hurley, Boston; Thomas Kittredge, Salem; Halsey Beach Loder, Boston; Edward H. Mackay Clinton; George Andrew Moore, Palmer; George W. Morse, Boston; Edwin Wallace Smith, Boston; Frank Dalmon Stafford, North Adams; Charles Douglas Wheeler, Worcester.

BOSTON CITY HOSPITAL.—The December clinical meeting of the Boston City Hospital was held on Thursday, December 4, 1919, at 8.15 P.M., in the Cheever Surgical Amphitheatre. The profession, graduate and undergraduate, is cordially invited to these meetings, held on the first Thursday of the month. At this meeting there were case demonstrations, and an address was delivered by Dr. Timothy Leary. The subject was discussed by Dr. Nichols and Dr. Robie.

THE CUTTER LECTURES ON PREVENTIVE MEDICINE.—The Cutter Lectures on Preventive Medicine, by T. M. Legge, M.D., D.P.H., His Majesty's Inspector of Factories and Lecturer on Factory Hygiene, University of Manchester, London, was held on December 8, 9, and 10, and included the following topics: "Twenty Years' Experience of the Notification of Industrial Diseases under the Workmen's Compensation Act"; "Medical Supervision in Factories"; "Industrial Diseases under the Workmen's Compensation Act." These lectures are open to all members of the classes in the Medical School, the medical profession, and others interested in these subjects.

WORCESTER DISTRICT MEDICAL SOCIETY.—A meeting of the Worcester District Medical Society was held on November 12 in Worcester. Dr. George Van Ness Dearborn of Cambridge read a paper on "Blood Pressure."

SPRINGFIELD ACADEMY OF MEDICINE.—At a meeting of the Springfield Academy of Medicine on November 11, Dr. Ernest A. Codman of Boston delivered an address on "Intestinal Obstruction."

APPOINTMENT OF CAPTAIN GEORGE F. FREEMAN AS MEDICAL AIDE.—Captain George F. Freeman, U.S.N., Medical Corps, has been appointed medical aide of the First Naval District, to succeed Captain John M. Edgar. Dr. Freeman is a native of Massachusetts and was appointed to the service June 7, 1900.

Correspondence.

CONTROL OF COMMUNICABLE DISEASES.

Mr. Editor:—

I beg to call your attention to unusual conditions that exist in the state at this time.

Scarlet fever and diphtheria are showing an unusual incidence in all sections of the state and this increase is due, almost without exception, to infection of households from incomplete isolation of the infected case and from mild cases to which physicians have not been called. To prevent this laxity of isolation and quarantine, you are advised to "tighten up" on the follow-up work of your inspectors. In the "missed" or "undiagnosed" cases advise your local school inspectors to watch assiduously for the return of children to school following an unexplained absence. Many children are now in school who show either the prodromal symptoms of scarlet fever or by peeling give evidence of recently having had the disease.

Owing to the high cost of living, people are not employing physicians except in extreme need and it becomes necessary, therefore, that our school inspections be even more carefully done than ever before. It would be well, especially in school rooms where a case of diphtheria or scarlet fever has been found, to combine with the inspection the daily taking of temperatures by a school nurse. All those showing a slight increase in temperature should be sent home for observation.

Smallpox is unduly prevalent in Canada and in the provinces. The form is apparently mild and it therefore becomes necessary to view all cases of chicken-pox as potential smallpox until the diagnosis has been made definitely.

I again urge the necessity of vaccination of all unvaccinated school children and believe it is well to bear in mind that immunity conferred by vaccination is not permanent and, therefore, all contacts with a known case or suspected contacts should be vaccinated unless they give evidence of recent vaccination or of having had the disease.

Very truly yours,

EUGENE R. KELLEY, M.D.,
Commissioner of Health.